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EXAMINER

WYSZOMIERSKI, GEORGE P

ART UNIT	PAPER NUMBER
1742	4

DATE MAILED: 05/06/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Art Unit: 1742

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

2. Claim 1 is rejected under 35 U.S.C. 102(e) as being clearly anticipated by Lee et al. (U.S. Patent 6,429,049), particularly column 4, lines 1-4 therein.

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 8, 9, 13 and 14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lee et al.

The Lee patent discloses in general a process of making vias for semiconductor packaging including a step of exposing a copper oxide surface to a laser beam to remove oxide until a copper surface is exposed. Lee does not specify the temperature and time as recited in instant claims 8 and 9; however, given that Lee uses a carbon dioxide or yttrium-aluminum-garnet laser (see Lee column 4, lines 5-6), the examiner's position is that performing the Lee process within the temperature and time ranges presently claimed would have been well within the level of one of ordinary skill in the art. With regard to claims 13 and 14, Lee column 4, lines

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49-62 appear to disclose a process in accord with these claims. While Lee does not specify the dielectric constant of the insulating layer in the prior art, this would appear to be a material property of a given substance. Because the actual substances used in the prior art and the claimed invention may be the same, the process as claimed would fall within the purview of what is described by Lee et al.

Consequently, a prima facie case of obviousness is established between the disclosure of Lee et al. and the process as presently claimed.

5. Claims 2-7 and 10-12 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to George Wyszomierski whose telephone number is (703) 308-2531. The examiner can normally be reached on Monday thru Friday from 8:00 a.m. to 4:30 p.m. Eastern time. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Roy King, can be reached on (703) 308-1146. The fax phone number for this Group is (703) 872-9310 for all correspondence except for After Final amendments in which case the Fax number is (703) 872-9311. The Right fax number for this examiner is (703) 872-9039. Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Group receptionist whose telephone number is (703) 308-0661.



GEORGE WYSZOMIERSKI
PRIMARY EXAMINER

GPW
May 2, 2003